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Building a Personal Language Learning Environment

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Abstract

Changes in technology and the role of the teacher in langauge learning have allowed learners to take charge of the process and develop their own tools. A way to develop more autonomy is to use a Personal Learning Environment (PLE). PLEs are individual conglomerations of tools, resources, information and interactions both online and off. They focus on the task of learning something chosen by the learner, but can then be applied to new explorations. After an introduction to PLEs, details of specific elements of PLEs are described, along with examples. In the final section we look at adding language to the mix, which results in Personal Language Learning Environments (PLLEs).

Introduction

Technology has disrupted industries, beginning with banking, moving to recording, and now publishing. Education is next. We are already seeing signs of this with the dominance of Blackboard in the LMS (Learning Management System) market, and worldwide questioning of the teacher's role in today's schools.

Advances in technology have lead to what is commonly termed Web 2.0, or in educational circles, "The Read/Write Web". See Ryan (2007) for details. Reading and writing are mixed, with authorship a part of the perception process. This leads to autonomy and amalgamation of receptive and productive aspects of language in our case.

> "No matter how you look at it, we are creating what author Douglas Rushkoff calls a "Society of Authorship" where every teacher and every student, every person with access will have the ability to contribute ideas and experiences to the larger body of knowledge that is the Internet. And in doing so, Rushkoff says, we will be writing the human story, in real time, together, a vision that asks each of us to participate. (Rushkoff, 2004, cited from Richardson, 2006, p. 5)

Curtis Bonk, in his 470 page opus about teaching on Web 2.0 states, "If this book could be shortened to its narrowest point, it would exist as a one-line proclamation that states, 'Anyone can now learn anything from anyone at anytime'" (Bonk, 2009, p. 7). With the web going mobile (see Ryan, 2010), students are no longer limited to laboratories or classrooms for their access to information. This is causing a large change in the roles of teachers and librarians. "What was accomplished previously with textbooks and classroom lectures has

shifted to other resources and learning technologies. This shift effectively frees up face-to-face classroom time for addressing personal needs" (Bonk, 2009, p. 11).

The do-it-yourself (DIY) movement has come to the university. It is a natural extension of the personalization of information management that began with radio, evolved into recorded classes on cassette tape, then video on DVD, and finally accelerated with the Internet. The traditional format of the university will not go away, but eventually it will be supplemented by PLEs and online resources that may work better for some, given schedule, economic and learning constraints.

In language teaching circles as well as general education we are seeing a move to Task-Based Learning (TBL), project-based learning (PBL), and sometimes a rejection of the limits a textbook puts on learning. An example of this is the Dogme approach to teaching advocated by Meddings and Thornbury (2009), which relies on input from the students as raw materials for the classroom interactions.

But the biggest change is in our students, who are what Marc Prensky calls *Digital Natives*. This term caught fire in 2001, and we have watched as a generation of children grow up in a world where the Internet has always existed. Teachers are digital tourists, or in Prenky's terms, *Digital Immigrants*. Immigrants think differently, not able to multitask or conceive of a world with information literally at one's fingertips, constantly.

In language learning (and teaching) the largest disruption is with tools like Google Translate making its way into our daily lives. Resources for languages are proliferating at a remarkable rate, and the quality is improving rapidly as well. This changes both the content and the methods of language courses. Students work with the technology, not in spite of it. Teachers tend to ignore it, but we do so at our peril. The free lectures from the best universities that are now available on the web will probably soon begin to be integrated into syllabuses.

Background, Context, and Alphabet Soup

Autonomous learning is nothing new, but combining it with technology, a response to shortcomings in traditional academia, is new. In the 1990s we saw virtual learning environments (VLE), like adaptations of Second Life, expand the geographic range of courses. The problem with these is that they are synchronous in nature, and although allowing for connection, not true interaction. Networked Learning Environments were used mostly for training (as opposed to teaching), and expanded the VLE with a front end that focused or guided the learner.

Personal (or Professional) Learning Networks (PLN) were a way to combine traditional face-to-face networking (such as what happens at a conference) or research collaboration, and facilitate it electronically. The goal here was more for professional development than

teaching or learning, but the students are the ultimate beneficiaries of the work that goes on in these environments.

Another thread to address is the conquest of Learning Management Systems (LMS) such as Blackboard (expensive), and other open source LMSs like Sakai, and still others that cater to multilingual classes and interactions like Moodle. These LMSs have developed over the last decade from the revolutionary idea of putting learning online to one of online administration and control over the learning process that, in most cases, sadly, does not promote real learning. In the hands of a well-trained teacher, though, an LMS can streamline a class and take advantage of the time in class to interact face-to-face, while putting content online to be studied between classes. This is called the Reverse Lecture model, and has recently been gaining acceptance.

The idea of PLEs has been primarily spread through MOOCs, or Massively Online Open Courses. Emulating the highly addictive and highly successful MMOGs, or Massively Multiplayer Online Games like World of Warcraft (WoW). This author took part in Connectivism & Connective Knowledge, 2008 (CCK 08). This course took place over 12 weeks, and had more than 1,300 participants from every continent except Antarctica. Last year, just over 1000 education professional attended PLENK 2010 (Personal Learning Environments for Networked Knowledge). The course followed a traditional syllabus, but resources were distributed across the web. A smaller example was a reading discussion group for Umberto Eco's *The Name of the Rose*. This group came together around one graduate student's web page called "The Rose in Winter." Each week a chapter was discussed and decoded. Currently, a course in Digital Storytelling, called DS 106, adds a group of networked auditors to an online and physical class taught by Jim Groom at the University of Mary Washington. Each week Jim outlines another method of telling a story online, combining text, visual, graphic, audio and video elements and using online tools to create and publish them. Then the students suggest assignments that will challenge the class to complete that method with those tools. Students have proved to be their own task-masters, assigning themselves more homework than I have ever known teachers to assign.

PLEs come out of a tradition that is anti-authoritarian, disruptive, and seeks to work outside the system, or at least parallel to it. Much new online learning is an indirect descendant of the thinking of Paulo Friere, Ivan Illich, and Seymour Papert. Open Source is seen as almost essential, and sharing with Creative Commons licenses to allow free access (both unrestricted and at no cost) to programs and content is common. And yet PLEs have been quickly adopted by at least one large publisher, Pearson, with a whole conglomeration of tools and resources in one package (see LearningStudio). The list of over 100 items includes many of the elements of a PLE, as outlined below. (Pearson, 2011)

What is a PLE?

Personal Learning Environments (PLE) are new. They have grown out of Personal Learning Networks (PLN) and Networked Learning Environments (NLE). Curtis Bonk, in a section called Enhance, Extend, Transform and Share Learning, writes, "But today our metaphors reach beyond enhancing, extending, or transforming learning with technology to notions of sharing that learning." (2009, p. 15)

PLEs represent a shift away from the model in which learners consume information through independent channels such as the library, a textbook, or an LMS, moving ahead to a model where learners draw connections from a growing matrix of resources that they select and organize. In this context, the PLE functions as an extension of the historical model of individual research. (Educause, 2009)

Looking at the components or contingent factors of the PLE, we see three clear elements. **Personal** Learning Environments are unique to the individual. Every PLE is different. This depends on the learning style, schedule, needs and wants of the learner. It depends on the motivation and goals of the learner. It depends on the situation the learner finds herself.

Personal **Learning** Environments are obviously about learning, but this can be interpreted in different ways. PLEs developed as a way to implement Constructivist, Connectivist, Complex, and Collaborative learning. Learning is quickest, most efficient and long-lasting if the learner is required to construct the ideas and concepts (see Papert, 1991). This way of thinking views learning as developing a network of ideas and concepts as well as resources, where the connections between the ideas are as important as the ideas themselves: "At its heart, connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks." (Downes, 2007, p. 1).

Many artifacts of the Complexity Theory and self-organization and emergence are present in PLEs.

> Thus, as *personal learning environment* suggests, learning is framed by *personal* and *environment* and cannot exist without both. Another way to interpret this phrase is that learning is one of those activities that joins the individual to his environment. Or perhaps a better way to say this is that learning describes a particular kind of interplay, a particular dance, between the individual and the environment. And if that isn't complex enough, then imagine that all six and a half billion humans are all engaged in a similar dance—each with her own nuance, steps, rhythms, intensities, or *determinations, magnitudes, and dimensions*. (Hamon, 2010, p. 1)

Self-organization, a postulate of the the Complexity Theory, is quite evident in how a PLE makes sense out the chaos of the Internet through tools for aggregation and organization. This takes place both on an individual and a network level. This is further mirrored by the work of Diane Larsen Freeman on language learning, chaos and complexity, along with emergence (all handled in the final section below).

PLEs are personal but also Collaborative, with the network as the center, connections, both personal and intellectual, conceptual and factual, are all essential for the PLE to operate.

Personal Learning **Environments** form a milieu online and an interface with the real world.

> Important concepts in PLEs include the integration of both formal and informal learning episodes into a single experience, the use of social networks that can cross institutional boundaries and the use of networking protocols (Peer-to-Peer, web services, syndication) to connect a range of resources and systems within a personally-managed space. The 'pedagogy' behind the PLE — if it could be still called that — is that it offers a portal to the world through which learners can explore and create, according to their own interests and directions, interacting as they choose, with their friends and learning community. (Petrushyna 2008, p. 1)

It is important here to note that PLEs are not a thing, not something that is tangible or divisible. Even though we may talk about elements of a PLE, the environment is something that is online, in the physical world and in the social world, and yet only truly resides inside the mind of the learner. It is more of an attitude than anything else.

Why PLEs?

In previous papers (Ryan, 2004), this author has advocated an approach to learning that echoed the ideas of Roger Schank, who was an Artificial Intelligence researcher at MIT, before moving on to establish his own department for learning and education at Northwestern. Schank discovered that computers could be programmed to provide information at the moment it was needed by a learner, and thus reverse the standard classroom situation. Instead of having 30 students and one teacher, each student could have 30 teachers, or experts, programmed into a computer. Schank found that students remembered more and were able to generalize their learning better by creating a simulation of a situation where the desired skills were required to complete a task. As the students experienced the simulation, questions arose, and the program provided expert advise in the form of explanations. The experts explained how they too had made the same mistakes, and their eventual solutions. This seemed to work quite well with well-defined tasks such as bar-tending, and also with more complex tasks like negotiating a contract. Schank went on to Columbia University where he and his company created some of the most advanced learning

programs, spending millions. Mike Caulfield, a programmer on the projects says:

> Like most university-focused learning objects of that time, our work ended up on the trash heap of history. Columbia Interactive (at least our branch of it) closed down in 2003. The reasons why we failed are complex enough that I still mull them over, but the reasons why we left so little enduring mark on how things are taught in Higher Education is easier.
>
> We weren't open. (Caulfield, 2010. p. 1)

What Caulfield means by not being open was that the systems did not allow for variances among the learners, and did not allow for input by the learners to affect both the program and other participants. In short, there was no Web 2.0. PLEs address this shortcoming.

The Six Components of a PLE

The first week of the PLENK 2010 MOOC attempted to define a PLE. There was a surprising number of different concepts. For this paper, we will follow one definition by Rita Kop, one of the facilitators at PLENK 2010, who outlined Stephen Downes' six essential elements of a PLE.

1. A personal **Profiler** collects and stores personal information. Each learner must first decide his or her own motivation and learning styles. In addition there are short-term and long-term goals and rewards they must decide upon. Personality also enters the picture with introversion/extroversion.

2. An information and resource **Aggregator** brings disparate learning objects together into a single online space for easy access. Among these, the most often used is RSS, or Really Simple Syndication. Like a magazine subscription, each blog or web site can set up RSS so that people visiting do not have to return. Instead, each update or new piece of information on that web site or blog is automatically sent to the subscriber. This author monitors more than 40 web sites in this manner, with a daily influx of hundreds of updates. This is manageable only because of the organization of Google Reader.

3. **Editors and publishers** enable users and learners to produce and publish artifacts to aid the learning and interest of others. These tools, exemplified by Google Docs, Flickr photos, and YouTube videos, allow learners to create and share their work and thinking. This is an essential part of the learning process.

4. **Helper applications** that provide the pedagogical backbone of the PLE. These are the thousands of small Web 2.0 tools and programs and websites that facilitate learning by making connections to resources and learning objects. These help the learner develop skills,

make sense of information, facilitate the use of more complex applications and provide context for resources.

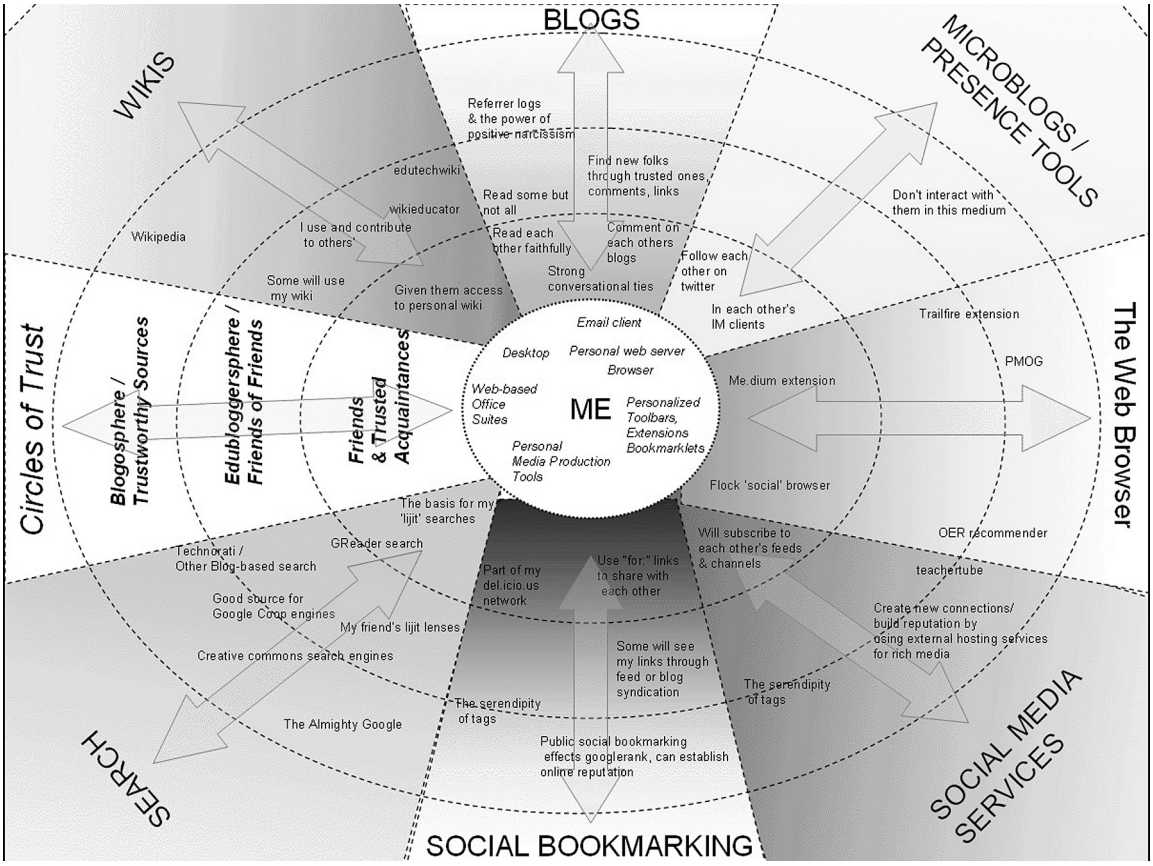
5. **Services** provide a way for the learner to interact with her environment. They can be physical, such as a university or teacher, or could be online, such as a simulation or feedback mechanism. These are usually more complex than helper applications, and often require payment.

6. **Recommenders** are often people but can be programmed and automatic. If the learner is either unsure of a direction to continue her exploration, or needs help to continue her research, a recommender provides support.

Sample PLEs

PLEs should contain most of these elements to function adequately. Some of these can be adapted or changed as the need arises, and the contents of each of these elements will vary with the learner.

Here is an example of a map of Scott Leslie's PLE, one of many examples available at the PLENK 2010 collection site (see link in resources).



Pearson's commercial site is adapting quickly to this movement, with their LearningStudio, here is the section on Personal Learning.
Here is a small part of the list:

Personal Work

Tools for building a Personal Learning Environment (PLE), include:

- **Today Portal**: Latest info from Rooms in Studio Professional and external RSS.
- **My contacts**: List of personal contacts and friends.
- **My calender**: Organize personal appointments and meetings.
- **My resources**: Network-based hard drive for personal files and content.
- **My Portfolio**: Personal portfolio and display folder.
- **Instant messenger**: Internal instant messaging system.
- **Blog client**: Edit your external blogs from directly within Studio Professional.
- **Meeting**: Personal real-time meeting tool for 3 users. Features incl. video, app. sharing, whiteboard etc.
- **Stickies**: Internal messaging system in Studio Professional.
- **My homepage**: Personal web page.
- **My public resources**: Share a selection of your personal documents.
- **Information central**: Quick overview of new elements on Today portal.
- **To-do list**: Personal task list with progress indication.
- **RSS reader**: Display RSS feeds from external sources on the Today portal. (Pearson, 2011)

Adding Language to the PLE: PLLE

It is not surprising to note that traditional methods of language teaching do not fit very well into the PLE paradigm. There is one notable exception. Community Language Learning (CLL), developed in Chicago in the 1960's has some elements of a PLE in that content for the classes were chosen by the students and the focus was on natural communication. CLL did, however, have a clear delineation of the teacher (knower) and the student (learner). This distinction is not apparent in PLEs.

Vygotsky and his zone of proximal development, along with socially based learning, involves the emotions and echoes comments of an expert on learning on the web. Seely Brown (1999) on the social nature of learning: "Learning becomes as much social as cognitive, as much concrete as abstract, and becomes intertwined with judgement and exploration."

More recently, Luke Meddings and Scott Thornbury have advocated for a return to an approach much like CLL, but with students being more active, and the teacher guiding the process only indirectly. This approach is called Dogme, after a group of film directors who

eschewed all extraneous props and lighting to focus on the content, only filming what was already present, not changing the environment.

Some of the main tenets are, 1) Language learning is conversation driven. Conversation is discoursal, interactive, communicative. It allows for scaffolding, and promotes socialization. 2) It is "materials-light." Rejecting textbooks and other materials that constrict and order content, the goal is to provide practice and information about the target language in a natural conversational setting, with topic arising out of student needs instead of being handed down. 3) A focus on emergent language: Language that arises because of the self-organizing principle and focus on the needs of the learners. An effort to focus on the process and increase language production will lead to more learning.

The Dogme school of language teaching has some remarkable parallels to PLEs, and they do work together well. Dogme has taken an approach that for the most part does not include technology. But if one deems the Internet and the tech world as part of the natural environment, especially for today's Digital Natives, then allowing this technology into the learning environment and adapting Dogme to include technology would allow them to reinforce one another. Dogme tends to be a class-centered activity, while PLEs are often worked on individually, outside of the traditional class. It is a natural combination.

Some examples of elements of a PLLE

Profiler: Most learners assemble their profile in one place on the web. Social networks like Facebook can be adapted, but requires some kind of clear needs analysis. LinguaLinks at sil.org has a simple one, a good starting point. You can take a pre-course questionnaire at Cactus Langauge Training to get an idea of your motivation for learning a language. At this point, however, there are very few places to help you define yourself as a language learner. A Profile is also a place on the Internet where you "live". A place where you can show who you are, and allow people to contact you. The blogging software, now called a content management system or CMS, like WordPress works very well for this.

Aggregator: Set up Google Reader and subscribe to web sites and blogs in the target language. Group-based aggregators like Grouply also work if the learners know enough English to manage the menus. A good online bookmark manager: Delicious is the most popular in English, but Diigo works better with students. Hatena is a good alternative in Japanese.

Editor/Publisher: Google Docs or WordPress for text. Flickr for pictures. Vimeo or YouTube for video. Animoto for animations, Slideshare or Prezi for presentations. Aviary has a nice suite of free graphic, audio and video editing.

Helper applications: These number in the thousands, with dozens coming out each day.

There is a recent move to Apps based software, but this is limiting. Best to use tools that are freely available on the web, with enough backing that they will not disappear suddenly. Examples: Visual Thesaurus for mapping vocabulary.

Services: English Central for pronunciation and vocabulary practice using YouTube videos. DynEd software. Testing Services. Prep classes. University degree programs. Cram schools. LiveMocha web site and courseware. For High school students, try pikifriends, a safe social network for language learners.

Recommender: Teachers. Social based recommenders like FourSquare for restaurants have not yet been developed for language learning. Online courseware like Smart.fm and LiveMocha often have clear recommendation engines. Discussion groups related to language learning on Facebook have places where you can ask questions and get answers from other learners in similar situations.

This is only one point from which you can begin building your PLLE. Both teachers and learners will see an increase in their acquisition as they take responsibility for their own learning and develop the tools they need for the way they learn. The added advantage to doing this is that instilling these habits will give a life-long advantage to the learner. Comfortable with the portability and ubiquity that today's technology affords us, she will be able to learn any time, anywhere, at her own speed in her own way, developing her skills with input of friends, experts, tools and resources available at her fingertips online and on hand in the physical world.

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